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This marks the 8th issue (and second year end) of publication of the newsheet. In that time the coverage of QL news, tips and particulars was shifted to a new, separate newsletter, QL Technical Newsletter, and the TS2068/Spectrum ROM, TS1000, ZX-81 and TS1500 material has been left to this newsletter to continue with. This newsletter trys to report both news and specific descriptions/abstractions from the technical information being published elsewhere as well as original and first-time-in-print items. Leading off the original items for this issue:-

The Ottawa-Hull TSUG has started a B.B.S. service, after hours at (area code) (613) 745-8838 . It is running at the moment at 300 baud and is scheduled for upgraded operation on 1200 baud (optional) soon. Hats off to Mike Dove and Dave Solly for all the work put in on it as well as Larry Kenny of Larken for technical advice. In other news, the prospect of stocking spare parts for the TS2068 was turned down at the October meeting but the possibility of assembling accessory boards for the TS1000 like the SCRAM board or Hunter board was approved, if the boards and parts are provided without cost to the members doing the assembly and the club (that is pre-paid by the orderer). Now the problem of finding the boards is being tackled. The gap left in the third-party accessory market by the departure of Jim Horne, Fred Nachbaur, Knighted Computers, and Larry Kenny leaving the TS1000/ZX-81 segment of the market to concentrate on the TS2068, can in the writer's opinion only really be filled by user groups and other volunteers (plus a few 'hobby' businesses maybe). Dues were also reinstituted at the October meeting and some cassettes of games and other TS1000/ZX-81 programs were received for the library, courtesy of Clem Holden. Contact persons for the group are: Mike Dove, 2161 East Acres Rd., Gloucester, Ont. Canada K1J 9A6 and David Solly, 1545 Alta Vista Dr., Apt. 1402, Ottawa, Can. K1G 3P4 There is no connection between this group and the publisher of this newsletter other than friendly co-operation, it might be noted. The group's n/l was scrapped Oct.,89.

Like many people, who have probably never got around to it, the writer has always wanted an EPROM programmer or/and microcontroller programmer for his ZX-81 but was loath to spend much money to get one. With that in mind, the writer is looking into designs for such devices at the present. Maybe even an EPROM cartridge module, where an EPROM (or CMOS memory, battery-backed up) can be slotted into any memory postion one would want in the ZX-81/TS1000 memory map. Radio-Electronics recently published the schaematic for a 68705 microcontroller/microprocessor programmer that it seems could easily be adapted to run off a ZX-81/TS1000, if you had a universal memory buffer module designed. Design is fun, but hardware hacking is more of a chore, not to mention debugging designs, but that project will be put aside with the future in mind. Meanwhile, if anyone has an old ZX-81 EPROM programmer that they want to get rid of, or complete plans/info/documention, on one, I would like to see it. The writer even looked into PROM programming but it seemed too complicated to do by hand.

POKES for the TS2068. In Oct.89, a number of POKEs for the TS2068 as well as other tricks were published by the Washington, D.C. user group, CATS (Oct.) Among them were some old standards like POKE 23658,8 for capitals only mode and POKE 23658,Ø to go back to regular mode (useful for running a program uploaded from the TS1000, since the TS1000 doesn't have l.c. and poking into caps mode will eliminate false responses to IF A$="YES" THEN ... which will not repond to "yes" (lower case) so introducing an erroneous response into the program). As well, new ones to me, like POKE 236Ø9,X where X is from 1 to 255, for key click. And SCROLL controls, like POKE 23692,2 which when used right before a PRINT, acts like the TS1000 SCROLL command. POKE 23692,1 which scrolls 22 lines then you need a key press for each line, POKE 23659,Ø to make a program 'unstoppable' by using all 24 lines (POKE 23659,2 will set the computer back to normal mode), and the tip that CAPS SHIFT 3 will scroll two screens when listing the program. INPUT tips include POKE 23617,236 to get a question mark displayed in input statments as a cursor (as with Microsoft BASIC's), and INPUT AT 22,Ø;AT 1Ø,Ø;"Input your value";A$ to input at any screen position.

Make No Mistake-Timex-Sinclair computers progress: ZX-81 has 16 error codes, the TS2068 has 27 and the QL has 99. (Herb Schaaf, CATS, Washington, D.C. Newsletter)

Some Group Addresses: Southwestern PA Users' Group, c/o Ralph Vasko, 1 Virginia Dr., Donora, PA, USA 15033 and Greater Cleveland Sinclair Users' Gp., 12706 Leeila Ave., Cleveland, OH, USA 44135//BOSTON SIG, 971 Fellsway, Medford, MA, USA 02155

Sinclair Support/Vendors: Byte Power (TS2068 cassette magazine), 1748 Meadowview Ave. Pickering, Ont. Canada L1V 3G8 ///Russell Electronics (TS1000, Winky Board,QL), RD#1, Box 539, Centre Hall, PA 16828,USA///Repair of TS1000-TS1500-TS2068:Eric Johnson,249 N. Harden Ave.,Orange City, FL, USA///RMG,1419 ½ 7th St., Oregon City, OR 97045,USA 1-503-655-7484 (noon-10pm,Tues-Sat.) -Larken Disk System etc. TS2068///J.Hammer, TS1000-TS1500-TS2068 repair,HCR1,Box 50A, Melette,SD,USA 57461///UP-DATE (TS2068 mag. for disk system users, esp.JLO),Bill Jones, 1317 Stratford, Panama City,FL,32404.// Bottle Cap Software, 1284 Brushwood Ave.,Cincinnati,OH,USA45224-TS2068-TS1000-OS64// J.Mathewson, TS2068 repair & accessories, 1852 Appleford St.,Gloucester,Ont.,Canada K1J 6T4-call first at (613)746-7869 before sending anything for repair///

SYS 80 by Jack Dohany gives an 80 col. BASIC with an IBM keyboard to the TS2068 or Spectrum. This should be available by the end of 1989 and requires Jack to rewrite parts of the ROM of the computer. It works with a Linger Board, an RS232 video terminal board which allows the IBM keyboard and composite or TTL monitor to run 80 col. The Linger board is US$139 ass.,US$99kit from Digital Research Computers,POB 381450, Duncanville,TX,USA 75138 & Jack's ROM's for about $30 (when ready) from him at 390 Rutherford Ave.,Redwood City,CA,USA 94061 --mentioned in SINCUS,Oct.89 N/L

Public Domain: ABBA Software no longer supoorts TS and all programs have been placed in the public domain by Herb Bowers (up to letter date of July 11,1988)-HATS N/L

SpecDOS -- Jack Dohany(see above for address), allows full use of Spectrum software with the Aerco TS2068 disk interface. Note: LKDOS is Spectrum-ROM switch compatible without any DOS modification.

SNUG is alive and well but has lost the first two newsletter editors to family commitments. Dave Bennett & Paul Holmgren are now working on the newsletter. SNUG is also collecting public domain programs. Frank Davis, Head SNUG Librarian is collecting programs,at 513 E.Main, Peru, IN,USA 46970.ISTUG,Aug.89 n/l:Due to the n/l, etc. delay, all memberships paid up (as of summer, 1989) get an automatic 6 month extend.

TS1000 Software-Bill Harmer,97 Ruskin St.,Ottawa, Ont.,Canada K1Y 4B3 is working on some TS1000 programs on a continuing basis, including a DEC PDP-11 trainer/assembly language emulator. Past programs included an ESP (extrasensory perception) tester, Child I-for the very young, Vector Calculator, RRIF Calculator,Run Generator, and Accounting Practice. Vacuum Tube Triode (design) has been done for TS1000(& TS2068). Most of these programs have been submitted to user groups in the past. Maybe enough time will come to hand to work on the compiler NOT BASIC too. In addition to the programming hobby, books are being written, An Unofficial TS1000 LDOS Manual nearing early draft stage at about 86pp. & Tips,Tricks & Techniques From The User Group Masters for the TS1000 about 35pp is being enlarged as is a book on TS1000 Assembly Language Programming (about 25pp.) that specifically features the Artic assembler. Another porject, perhaps of interest to Amstrad users, is a BASIC codeworks program library which attempts to get some BASIC code in GW BASIC or BASICA out in the hands of amateurs for experimentation, in a field (MS DOS) where all to many programs are only available in compiled versions, without access to the source code possible. Too the writer has always wanted to experiment with programming in C, but that will wait. Source listings of some of these programs (TS1000) are available for $2 or cassette for $7.

NOTE:

Warning: Do not hack your hardware, send any money or make any comitment based on any info in this newsletter without thoroughly verifying the info with a qualified source. This newsletter is published as a hobby by Bill Harmer, 97 Ruskin St.,Ottawa, Ont., Canada K1Y 4B3 and copies are sent to a few user groups in exchange for their newsletters. Subscriptions are not available but some back issues are at $2 each. Other publications include: TS Bulletin, QL Technical, HC Orphan Survival N/L & and the book/booklets mentioned above. This publishing is not necessarily a continuing activity and may cease at any time. The publisher must get a real job some day soon and stop spending so much time fiddling around with his computers.